

# Ball Valve Range

## Universal and Universal Customised Series

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# Ball Valve Range

## DVGW Series

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## LIQUIfit®

### In-Line

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### Right-Angled

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### Accessories

#### 3130

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# Ball Valves, Universal Series

This range of valves has patented **seal wear compensating** technology for **reliable** and **durable** sealing, **protecting** any system whether under pressure or **vacuum**.

## Product Advantages

### Durability & Reliability

Automatic seal wear compensation for long-term reliability  
Robust, corrosion-resistant materials  
100% leak-tested in production  
Date coding to guarantee quality and traceability

### Versatility & Performance

Ideal for ensuring the performance of pneumatic circuits  
Customised valves for all special applications  
Unequalled performance under vacuum  
Smooth operation thanks to self-lubricating seals  
Large range of working pressures and temperatures  
Lever can be repositioned and replaced  
Many configurations to satisfy all system requirements



Pneumatics  
Vacuum  
Transportation  
Packaging  
Textile  
Sawmill  
Rubber & Plastics

Applications

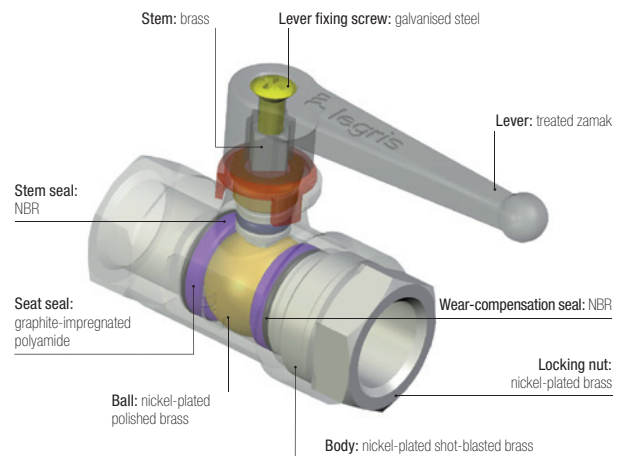
## Technical Characteristics

<b>Compatible Fluids</b>	Industrial fluids
<b>Working Pressure</b>	Vacuum to 40 bar
<b>Working Temperature</b>	-20°C to + 80°C

<b>Tightening Torques</b>	Threads	G1/8	G1/4	G3/8	G1/2	G3/4	G1	
	daN.m	0.10 to 0.20	0.10 to 0.20	0.15 to 0.25	0.20 to 0.35	0.50 to 0.70	0.50 to 0.70	
	Threads	G1¼	G1½	G2				
	daN.m	0.40 to 0.60	0.80 to 1.20	0.80 to 1.20				

Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used.  
Guaranteed for use with a vacuum of 755 mm Hg (99 % vacuum).

### Component Materials



### Silicone-free

### Regulations

DI: 97/23/EC (module PED A - diameters greater than 25 mm)  
DI: 2006/42/EC (Machinery Directive)  
DI: 2002/95/EC (RoHS)  
RG: 1907/2006 (REACH)

# Universal Series

## Installation Options

### Lockable Valves

Our lockable ball valves have been developed in order to prevent potentially dangerous consequences caused by unintended operation. Lockable in different positions, this range meets international safety requirements, such as ISO 4414.

The valves are lockable:

- at one point: models 0432 and 0439
- at three points: models 0437 and 0438

### Vented Valves

To stop fluid circulation and vent the circuit, 2 venting systems are provided:

- with threaded exhaust, to allow discharge of downstream media
- with pin-hole vent, for applications with no special discharge requirement

Fluid flow direction is indicated by an arrow on the valve body.

### Mountable Valves

On steel plate:

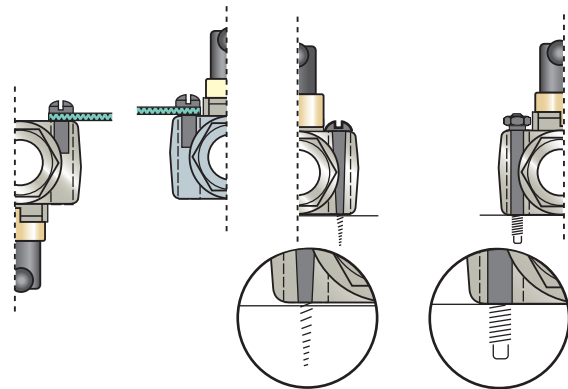
- bulkhead fixing
- complete valve below bulkhead

On frame:

- assemble with bolts

On wooden panel:

- assemble with woodscrews




### Universal Customised Valve Series

Based on the standard components of the universal series, this range allows the valve to be adapted to specific needs. There are 6 product versions available on request.

#### Product Codes

Valve type	0402	04	10	22
0400				
0401				
0402				
...				

 **Thread**  
 04 = 4 mm      10 = 1/8"  
 05 = 5 mm      13 = 1/4"  
 ...      ...  
 40 = 40 mm      48 = 2"

**Suffix**  
 20 = blue/red  
 22 = green/blue  
 26 = yellow/yellow  
 27 = blue/green  
 30 = white/red  
 32 = white/green

#### Identification

Each series may be easily identified by a colour marking on the lever.



#### Suffix Specification

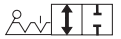
Identification		Body		Lever			Ball		Stem and Wear-Compensation Seals			Seat Seals			Application Examples
Suffix on the body	Colour bands on the lever	Nickel-plated brass	Chemical nickel-plated brass	Standard	Nickel-plated brass	Chemical nickel-plated brass	Nickel-plated polished brass	Chemical nickel-plated brass	EPDM	FKM	PTFE white	Rilsan: graphite-impregnated	Filled PTFE	PTFE white	
20		•		•			•			•		•			Hydrocarbons
22		•		•				•		•			•		Industrial fluids and high temperature
26*		•			•			•			• olive			•	Corrosive liquids or high temperature
27			•			•		•		•			•		Industrial fluids and/or harsh environments
30**		•		•			•		•			•			Gaseous oxygen circuits
32		•		•			•		•				•		Water and steam circuits


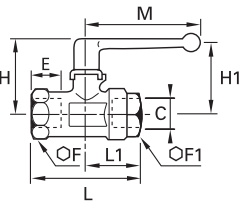


\*degreased \*\*oxygen-compatible grease

A usage chart in this chapter shows which type of valve to use according to the fluid being conveyed.

# Universal and Universal Customised Series

## 0402 2/2 In-Line Ball Valve, Female BSPP Thread


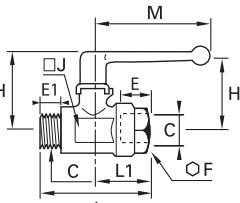




	Nickel-plated brass, NBR 	<b>C</b>  	<b>E</b>	<b>F</b>	<b>F1</b>	<b>H</b>	<b>H1</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/8 4 <a href="#">0402 04 10</a>	8	-	14	35	29	44	25	48	0.094
		G1/8 7 <a href="#">0402 07 10</a>	8	19	19	38	31	51	27	48	0.166
		G1/4 7 <a href="#">0402 07 13</a>	12	19	19	38	31	53	28	48	0.156
		G3/8 10 <a href="#">0402 10 17</a>	12	24	24	45	43	59	31	69	0.244
		G1/2 13 <a href="#">0402 13 21</a>	15	27	27	47	44	67	34	69	0.292
		G3/4 20 <a href="#">0402 20 27</a>	16.5	32	38	63	54	80	39	108	0.655
		G1 23 <a href="#">0402 23 34</a>	19	41	46	67	57	94	47	108	1.036
		G1¼ 32 <a href="#">0402 32 42*</a>	21.5	55	60	97	115	112	59	180	2.467
		G1½ 32 <a href="#">0402 32 49*</a>	22	55	60	97	115	120	62	180	2.340
		G1½ 40 <a href="#">0402 40 49*</a>	22	55	55	104	-	111	55	190	2.445
		G2 40 <a href="#">0402 40 48*</a>	26	70	70	104	-	122	61	190	2.614

\*Models with CE marking  
Maximum working pressure: 40 bar

## 0401 2/2 In-Line Ball Valve, Male/Female BSPP Thread


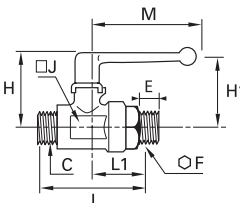




	Nickel-plated brass, NBR 	<b>C</b>  	<b>E</b>	<b>E1</b>	<b>F</b>	<b>H</b>	<b>H1</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/8 4 <a href="#">0401 04 10</a>	8	7	14	35	29	14	45	25	48	0.094
		G1/8 5 <a href="#">0401 05 10</a>	8	7	19	38	31	19	51	27	48	0.160
		G1/4 7 <a href="#">0401 07 13</a>	12	9	19	38	31	19	52	28	48	0.150
		G3/8 10 <a href="#">0401 10 17</a>	12	11	24	45	43	24	58	31	69	0.234
		G1/2 13 <a href="#">0401 13 21</a>	15	12	27	47	44	27	66	34	69	0.286
		G3/4 18 <a href="#">0401 18 27</a>	16.5	12	38	63	54	39	79	39	108	0.652
		G1 23 <a href="#">0401 23 34</a>	19	15	46	67	57	48	91	47	108	0.952
		G1¼ 32 <a href="#">0401 32 42*</a>	21.5	18	60	97	115	55	113	59	108	2.385

\*Models with CE marking  
Maximum working pressure: 40 bar

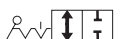
## 0400 2/2 In-Line Ball Valve, Male BSPP Thread


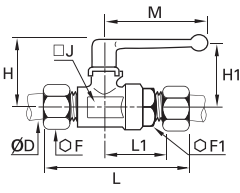




	Nickel-plated brass, NBR 	<b>C</b>  	<b>E</b>	<b>F</b>	<b>H</b>	<b>H1</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/8 4 <a href="#">0400 04 10</a>	7	14	35	29	14	45	25	48	0.094
		G1/4 7 <a href="#">0400 07 13</a>	9	19	38	31	19	60	36	48	0.166
		G3/8 10 <a href="#">0400 10 17</a>	11	24	45	43	24	70	43	69	0.252
		G1/2 13 <a href="#">0400 13 21</a>	12	27	47	44	27	78	45	69	0.324
		G3/4 18 <a href="#">0400 18 27</a>	12	38	63	54	39	90	50	108	0.714

Maximum working pressure: 40 bar

## 0411 2/2 In-Line Ball Valve with Connections for Use with Steel Tube


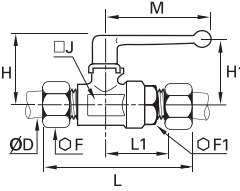




	Nickel-plated brass, NBR 	<b>ØD</b>  	<b>F</b>	<b>F1</b>	<b>H</b>	<b>H1</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		6 4 <a href="#">0411 04 06</a>	14	19	38	31	19	76	30	48	0.073
		8 6 <a href="#">0411 06 08</a>	17	19	38	31	19	77	30	48	0.095
		10 7 <a href="#">0411 07 10</a>	19	19	38	31	19	78	31	48	0.100
		12 10 <a href="#">0411 10 12</a>	22	24	45	43	24	85	36	69	0.110

Maximum working pressure: 40 bar

## 0414 2/2 In-Line Ball Valve with Compression Connections



	Nickel-plated brass, NBR 	<b>ØD</b>  	<b>F</b>	<b>F1</b>	<b>H</b>	<b>H1</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		6 4 <a href="#">0414 04 06</a>	13	19	38	31	19	72	31	48	0.177
		8 6 <a href="#">0414 06 08</a>	14	19	38	31	19	74	30	48	0.180
		10 7 <a href="#">0414 07 10</a>	19	19	38	31	19	78	31	48	0.210
		12 10 <a href="#">0414 10 12</a>	22	24	45	43	24	86	36	69	0.308

Maximum working pressure: 40 bar

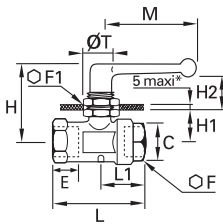
# Universal and Universal Customised Series

**0446**

2/2 In-Line Panel-Mountable Ball Valve, Female BSPP Thread



Nickel-plated brass, NBR



	C	DN		E	F	F1	H	H1	H2	L	L1	M	ØT	kg
G1/8	4		<a href="#">0446 04 10</a>	8	14	22	37	14	12	44	25	48	16.5	0.112
G1/4	7		<a href="#">0446 07 13</a>	12	19	24	45	19	14	53	28	48	20.5	0.188
G3/8	10		<a href="#">0446 10 17</a>	12	24	27	50	21	21	59	31	69	20.5	0.294
G1/2	13		<a href="#">0446 13 21</a>	15	27	27	51	23	21	67	34	69	20.5	0.338

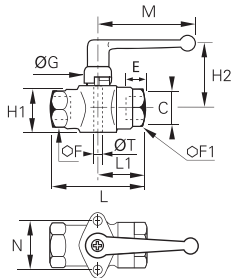
Maximum working pressure: 20 bar  
\*For G1/8 version, maximum panel thickness = 3 mm

**6402**

2/2 In-Line Ball Valve for Screw Fixing, Female BSPP Thread



Nickel-plated brass, NBR



	C	DN		E	F	F1	G	H1	H2	L	L1	M	N	ØT	kg
G1/8	4		<a href="#">6402 04 10</a>	8	14	14	18	18	30	44	25	48	25	4x70	0.132
G1/4	7		<a href="#">6402 07 13</a>	12	19	19	19	24	31	53	28	48	31	5x80	0.216
G3/8	10		<a href="#">6402 10 17</a>	12	24	24	20	30	45	59	31	69	31	5x80	0.324
G1/2	13		<a href="#">6402 13 21</a>	15	27	27	20	34	47	67	34	69	34	6x100	0.404
G3/4	20		<a href="#">6402 20 27</a>	16.5	32	38	27	44	52	80	39	108	43	8x125	0.830
G1	23		<a href="#">6402 23 34</a>	19	41	46	27	53	56	94	47	108	51	8x125	1.290

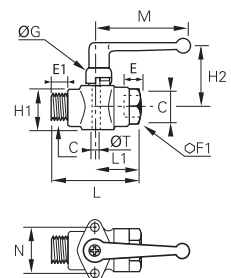
Maximum working pressure: 40 bar

**6401**

2/2 In-Line Ball Valve for Screw Fixing, Male/Female BSPP Thread



Nickel-plated brass, NBR



	C	DN		E	E1	F	G	H1	H2	L	L1	M	N	ØT	kg
G1/8	4		<a href="#">6401 04 10</a>	8	7	14	18	18	30	45	25	48	25	4x70	0.127
G1/4	7		<a href="#">6401 07 13</a>	12	9	19	19	24	31	52	28	48	31	5x80	0.212
G3/8	10		<a href="#">6401 10 17</a>	12	11	24	20	30	45	58	31	69	31	5x80	0.306
G1/2	13		<a href="#">6401 13 21</a>	15	12	27	20	34	47	67	34	69	34	6x100	0.394

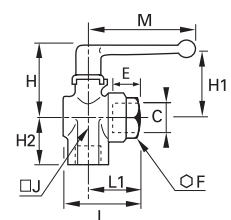
Maximum working pressure: 40 bar

**0472**

2/2 Right-Angled Ball Valve, Female BSPP Thread



Nickel-plated brass, NBR



	C	DN		E	F	H	H1	H2	J	L	L1	M	kg
G1/8	4		<a href="#">0472 04 10</a>	8	14	35	29	18	14	34	25	48	0.096
	6		<a href="#">0472 06 10</a>	8	19	38	31	20	22	37	27	48	0.183
G1/4	6		<a href="#">0472 06 13</a>	12	19	38	31	24	22	38	28	48	0.191
G3/8	9		<a href="#">0472 09 17</a>	12	24	45	43	27	25	46	31	69	0.260
G1/2	12		<a href="#">0472 12 21</a>	15	27	47	44	33	29	49	34	69	0.312
G3/4	18		<a href="#">0472 18 27</a>	16.5	38	59	51	40	39	60	39	108	0.704
G1	23		<a href="#">0472 23 34</a>	19	46	63	55	47	48	72	47	108	1.062

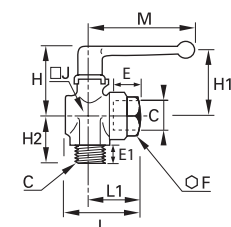
Maximum working pressure: 20 bar

**0471**

2/2 Right-Angled Ball Valve, Male/Female BSPP Thread



Nickel-plated brass, NBR

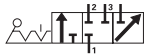



	C	DN		E	E1	F	H	H1	H2	J	L	L1	M	kg
G1/8	4		<a href="#">0471 04 10</a>	8	7	14	35	29	19	14	34	25	48	0.096
	6		<a href="#">0471 06 10</a>	8	7	19	38	31	22	22	37	27	48	0.182
G1/4	6		<a href="#">0471 06 13</a>	12	9	19	38	31	25	22	38	28	48	0.187
G3/8	9		<a href="#">0471 09 17</a>	12	11	24	45	43	28	25	46	31	69	0.256
G1/2	12		<a href="#">0471 12 21</a>	15	12	27	47	44	32	29	49	34	69	0.300
G3/4	18		<a href="#">0471 18 27</a>	16.5	12	38	59	51	37	39	60	39	108	0.682
G1	23		<a href="#">0471 23 34</a>	19	15	46	63	55	44	48	72	47	108	1.020

Maximum working pressure: 20 bar

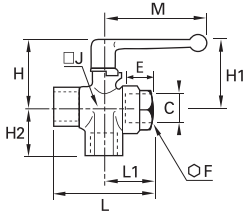
# Universal and Universal Customised Series

## 0482 3/3 Right-Angle Ported Ball Valve, Female BSPP Thread



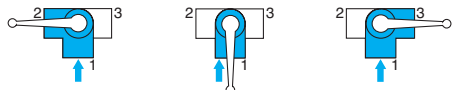


Nickel-plated brass, NBR



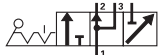
C	DN		E	F	H	H1	H2	J	L	L1	M	kg
G1/8	4	<a href="#">0482 04 10</a>	8	14	35	29	18	14	44	25	48	0.103
G1/4	6	<a href="#">0482 06 13</a>	12	19	38	31	24	22	53	28	48	0.200
G3/8	9	<a href="#">0482 09 17</a>	12	24	45	43	27	25	59	31	69	0.284
G1/2	12	<a href="#">0482 12 21</a>	15	27	47	44	33	29	67	34	69	0.346
G3/4	18	<a href="#">0482 18 27</a>	16.5	38	59	51	40	39	80	39	108	0.742
G1	23	<a href="#">0482 23 34</a>	19	46	63	55	47	48	94	47	108	1.160


Maximum working pressure: 20 bar



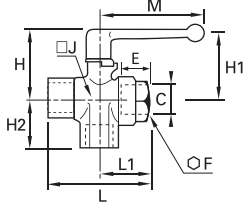
**Closed**

## 0483 3/3 Right-Angle Ported Ball Valve without Closed Position, Female BSPP Thread



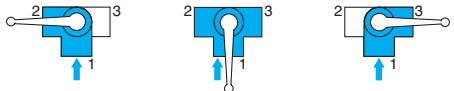


Nickel-plated brass, NBR

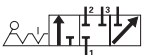



C	DN		E	F	H	H1	H2	J	L	L1	M	kg
G1/8	4	<a href="#">0483 04 10</a>	8	14	35	29	18	14	44	25	48	0.102
G1/4	6	<a href="#">0483 06 13</a>	12	19	38	31	24	22	53	28	48	0.196
G3/8	9	<a href="#">0483 09 17</a>	12	24	45	43	27	25	59	31	69	0.278
G1/2	12	<a href="#">0483 12 21</a>	15	27	47	44	33	29	67	34	69	0.340
G3/4	18	<a href="#">0483 18 27</a>	16.5	38	59	51	40	39	80	39	108	0.716
G1	23	<a href="#">0483 23 34</a>	19	46	63	55	47	48	94	47	108	1.066

Maximum working pressure: 20 bar

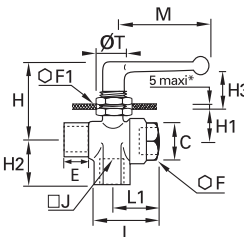


## 0448 3/2 Panel-Mountable Right-Angled Ball Valve, Female BSPP Thread



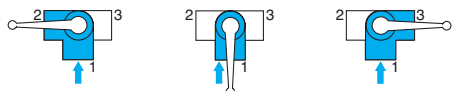


Nickel-plated brass, NBR



C	DN		E	F	F1	H	H1	H2	H3	J	L	L1	M	ØT	kg
G1/8	4	<a href="#">0448 04 10</a>	8	14	22	37	14	18	12	14	44	25	48	16.5	0.126
G1/4	6	<a href="#">0448 06 13</a>	12	19	24	45	19	24	14	22	53	28	48	20.5	0.230
G3/8	9	<a href="#">0448 09 17</a>	12	24	27	50	21	27	21	25	59	31	69	20.5	0.328
G1/2	12	<a href="#">0448 12 21</a>	15	27	27	51	23	33	21	29	67	34	69	20.5	0.392


Maximum working pressure: 20 bar  
\*For G1/8 version: maximum panel thickness = 3 mm



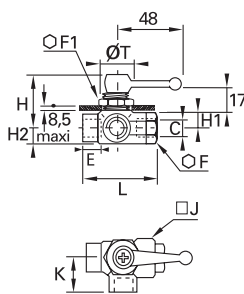
**Closed**

## 0452 3/2 Panel-Mountable Equal Plane Ball Valve, Female BSPP Thread



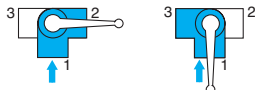


Nickel-plated brass, NBR



C	DN		E	F	F1	H	H1	H2	J	K	L	ØT	kg
G1/8	4	<a href="#">0452 04 10</a>	8	14	22	39	10	8	16	18	25	19	0.130
G1/4	6	<a href="#">0452 06 13</a>	12	19	24	40	11	11	23	24	28	20	0.206

Maximum working pressure: 20 bar

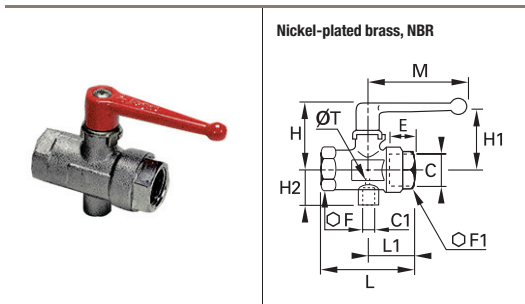




# Universal Series, Vented

**0489**

**3/2 In-Line Vented Ball Valve, Female BSPP and Metric Thread**

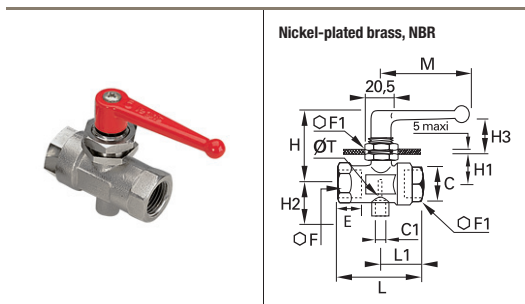


C	C1	DN		E	F	F1	H	H1	H2	L	L1	M	ØT	kg
G1/4	M5x0.8	7	<a href="#">0489 07 13</a>	12	24	24	46	43	17	59	31	69	2	0.270
G3/8	M5x0.8	10	<a href="#">0489 10 17</a>	12	24	24	46	43	17	59	31	69	2	0.243
G1/2	G1/8	13	<a href="#">0489 13 21</a>	15	27	27	47	44	24	67	34	69	2	0.310
G3/4	G1/4	18	<a href="#">0489 18 27</a>	16.5	32	38	63	54	33	80	39	108	2.5	0.670
G1	G1/4	23	<a href="#">0489 23 34</a>	19	41	46	67	57	37	94	47	108	3	1.050

Maximum working pressure: 40 bar

**0449**

**3/2 Panel-Mountable In-Line Ball Valve, Female BSPP and Metric Thread**

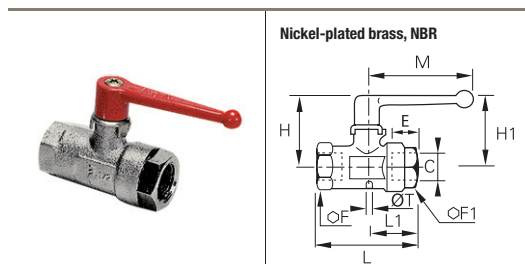
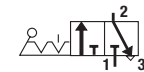


C	C1	DN		E	F	F1	H	H1	H2	H3	L	L1	M	ØT	kg
G1/4	M5x0.8	7	<a href="#">0449 07 13</a>	12	24	27	50	20	17	21	59	31	69	2.5	0.313
G3/8	M5x0.8	10	<a href="#">0449 10 17</a>	12	24	27	50	20	17	21	59	31	69	2.5	0.291
G1/2	G1/8	13	<a href="#">0449 13 21</a>	15	27	27	52	23	24	21	67	34	69	4	0.352

Maximum working pressure: 20 bar

**0469**

**3/2 In-Line Vented Ball Valve, Female BSPP Thread**



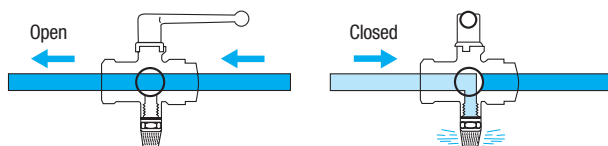
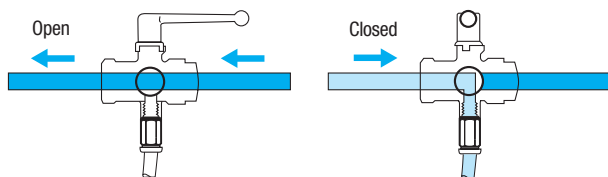
C	DN		E	F	F1	H	H1	L	L1	M	ØT	kg
G1/8	4	<a href="#">0469 04 10</a>	8	14	14	35	29	44	25	48	1.5	0.092
G1/4	7	<a href="#">0469 07 13</a>	12	24	24	46	43	59	31	70	2	0.268
G3/8	10	<a href="#">0469 10 17</a>	12	24	24	46	43	59	31	70	2	0.246
G1/2	13	<a href="#">0469 13 21</a>	15	27	27	47	44	67	34	70	2	0.294
G3/4	18	<a href="#">0469 18 27</a>	16.5	32	38	63	54	80	39	108	2.5	0.668
G1	23	<a href="#">0469 23 34</a>	19	41	46	67	57	94	47	108	3	1.026

Maximum working pressure: 40 bar

## Operation of Vented Ball Valves

With vent connected to a tube = collection of purged media

With vent connected to a silencer = noiseless discharge to atmosphere



You will find our ranges of fittings, tubing and silencers in Chapters 1, 3 and 9.

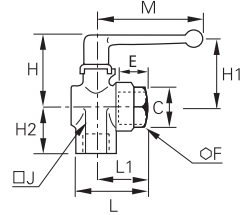


# Universal Series, Vented

## 0462 3/2 Right-Angled Ball Valve with Vent, Female BSPP Thread



Nickel-plated brass, NBR



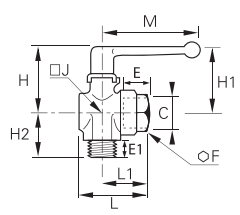
C	DN		E	F	H	H1	H2	J	L	L1	M	kg
G1/8	6	0462 06 10	8	19	38	31	20	22	37	27	48	0.192
G1/4	6	0462 06 13	12	19	38	31	24	22	38	28	48	0.185
G3/8	9	0462 09 17	12	24	45	43	27	25	46	31	69	0.261
G1/2	12	0462 12 21	15	27	47	44	33	29	49	34	69	0.312
G3/4	18	0462 18 27	16.5	38	59	51	40	39	60	39	108	0.698
G1	23	0462 23 34	19	46	63	55	47	48	72	47	108	1.066

Maximum working pressure: 20 bar

## 0461 3/2 Right-Angled Ball Valve with Vent, Male/Female BSPP Thread



Nickel-plated brass, NBR

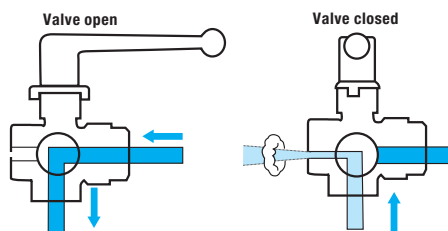


C	DN		E	E1	F	H	H1	H2	J	L	L1	M	kg
G1/8	6	0461 06 10	8	7	19	38	31	20	22	37	27	48	0.182
G1/4	6	0461 06 13	12	9	19	38	31	24	22	38	28	48	0.186
G3/8	9	0461 09 17	12	11	24	45	43	27	25	46	31	69	0.257
G1/2	12	0461 12 21	15	12	27	47	44	33	29	49	34	69	0.304
G3/4	18	0461 18 27	16.5	12	38	59	51	40	39	60	39	108	0.648

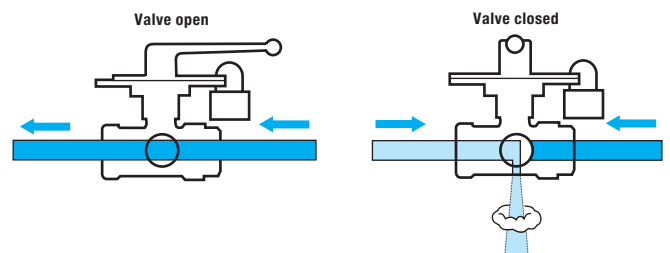
Maximum working pressure: 20 bar

### Operation of Right-Angled Vented Ball Valves

With pin-hole vent = purge to atmosphere without silencer



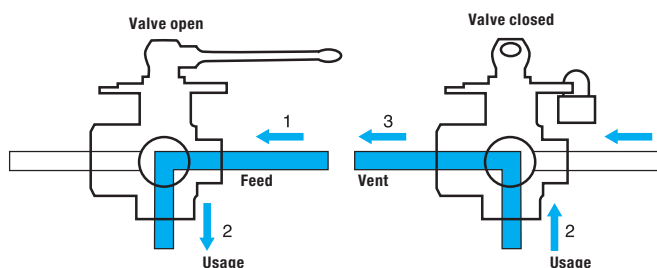
### Operation of Lockable Vented Ball Valves



**Removable lever:** where the lever is obstructed in its movement, it can be refitted the opposite way.

### Operation of 3/2 Lockable Valves

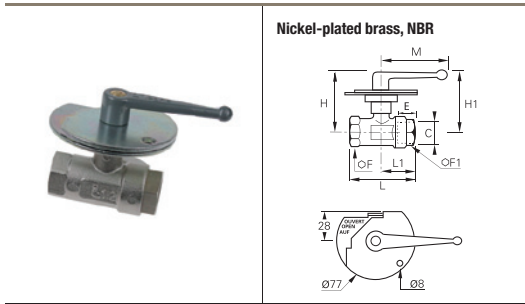
Drilled below and square in the horizontal plane, these valves provide a connection between: either port 1 and port 2, or port 2 and port 3.



**Removable lever:** where the lever is obstructed in its movement, it can be refitted the opposite way.

# Universal Series, Lockable

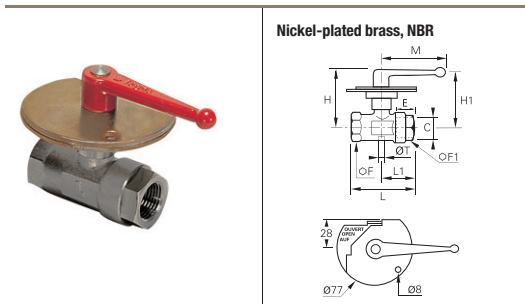
## 0432 2/2 In-Line Lockable Ball Valve, Female BSPP Thread



C	DN		E	F	F1	H	H1	L	L1	M	kg
G1/8	4	<a href="#">0432 04 10</a>	8	19	19	59	54	51	27	69	0.415
G1/4	7	<a href="#">0432 07 13</a>	12	19	19	59	54	59	28	69	0.396
G3/8	10	<a href="#">0432 10 17</a>	12	24	24	60	55	59	31	69	0.460
G1/2	13	<a href="#">0432 13 21</a>	15	27	27	62	57	67	34	69	0.522
G3/4	20	<a href="#">0432 20 27</a>	16.5	32	38	66	56	80	39	108	0.800
G1	23	<a href="#">0432 23 34</a>	19	41	46	70	59	94	47	108	1.186

Maximum working pressure: 40 bar  
Handle is not removable.  
Fixed and mobile plates: zinc-plated steel.

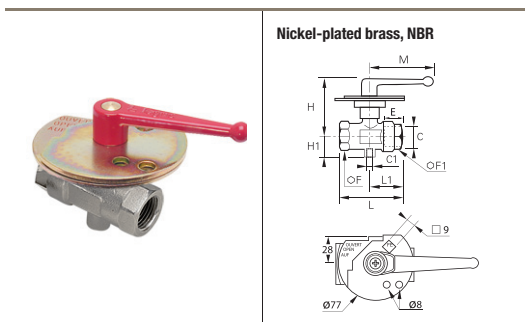
## 0439 3/2 In-line Vented Lockable Ball Valve, Female BSPP Thread



C	DN		E	F	F1	H	H1	L	L1	M	ØT	kg
G1/8	4	<a href="#">0439 04 10</a>	8	19	19	59	54	51	27	69	2	0.410
G1/4	7	<a href="#">0439 07 13</a>	12	19	24	60	55	59	31	69	2	0.480
G3/8	10	<a href="#">0439 10 17</a>	12	24	24	60	55	59	31	69	2	0.460
G1/2	13	<a href="#">0439 13 21</a>	15	27	27	62	57	67	34	69	2	0.514
G3/4	18	<a href="#">0439 18 27</a>	16.5	32	38	66	56	80	39	108	2.5	0.810
G1	23	<a href="#">0439 23 34</a>	19	41	46	70	59	94	47	108	3	1.185

Maximum working pressure: 40 bar  
Handle is not removable.  
Fixed and mobile plates: zinc-plated steel.

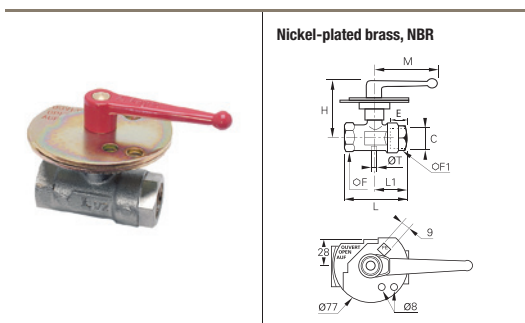
## 0436 3/2 In-Line Lockable Ball Valve with Threaded Exhaust Port, Female BSPP and Metric Thread



C	C1	DN		E	F	F1	H	H1	L	L1	M	kg
G3/8	M5x0.8	10	<a href="#">0436 10 17</a>	12	24	24	60	17	60	32	69	0.475
G1/2	G1/8	13	<a href="#">0436 13 21</a>	15	27	27	60	24.5	67.5	34.5	69	0.500
G3/4	G1/4	18	<a href="#">0436 18 27</a>	16.5	32	38	69.5	33	80	39.5	108	0.850
G1	G1/4	23	<a href="#">0436 23 34</a>	19	32	38	69.5	33	80	39.5	108	1.215

Maximum working pressure: 40 bar  
Handle is not removable.  
Fixed and mobile plates: zinc-plated steel.

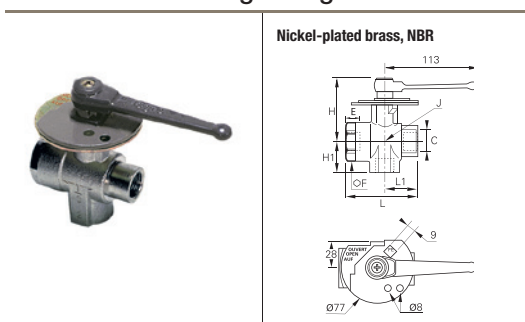
## 0437 3/2 In-line Vented 3-Point Lockable Ball Valve, Female BSPP Thread



C	DN		E	F	F1	H	L	L1	M	ØT	kg
G1/4	7	<a href="#">0437 07 13</a>	12	24	24	60	59	32	69.5	2	0.476
G3/8	10	<a href="#">0437 10 17</a>	12	24	24	60	60	32	69.5	2	0.456
G1/2	13	<a href="#">0437 13 21</a>	15	27	27	60	67.5	34.5	69.5	2	0.510
G3/4	18	<a href="#">0437 18 27</a>	16.5	32	38	69.5	80	39.5	108.5	2.5	0.820
G1	23	<a href="#">0437 23 34</a>	19	41	46	73	94.5	47.5	108.5	3	1.192

Maximum working pressure: 40 bar  
Handle is not removable.  
Fixed and mobile plates: zinc-plated steel.

## 0438 3/2 Right-Angled 3-Point Lockable Ball Valve, Female BSPP Thread



C	DN		E	F	H	H1	J	L	L1	kg
G3/8	9	<a href="#">0438 09 17</a>	12	38	76	34	39	73	35	0.970
G1/2	12	<a href="#">0438 12 21</a>	15	38	76	37	39	78	38	0.947
G3/4	18	<a href="#">0438 18 27</a>	16.5	38	76	40	39	80	40	0.905
G1	23	<a href="#">0438 23 34</a>	19	46	80	47	48	94	47	1.295

Maximum working pressure: 20 bar  
Fixed plate: zinc-plated steel, mobile plate: steel, grey epoxy-coated.  
Removable handle: where the handle is obstructed in its movement, it can be refitted opposite the original position.

# Ball Valves, Universal Light Series

Using the Universal Series technology, the Parker Legris light series valves offer the advantages of **compactness**, **ease of operation** and **long-term reliability**.

## Product Advantages

<b>Easy-to-Use</b>	<ul style="list-style-type: none"> <li>Ease of operation due to the low friction design</li> <li>The short levers may be repositioned and exchanged</li> <li>Extremely compact</li> <li>Wide range of configurations</li> </ul>
<b>Maximum Efficiency</b>	<ul style="list-style-type: none"> <li>Excellent performance under vacuum</li> <li>Full flow</li> <li>Chemical nickel-plated brass with high phosphorous content for outstanding corrosion resistance</li> <li>Automatic seal wear compensation system</li> </ul>
<b>Reliability</b>	<ul style="list-style-type: none"> <li>Tried-and-tested technology</li> <li>Forged brass provides mechanical strength and long service life</li> <li>100% leak-tested in production</li> <li>Date coding to guarantee quality and traceability</li> </ul>



**Applications**

- Vacuum
- Transportation
- Packaging
- Textile
- Pneumatics
- Sawmills
- Rubber & Plastics

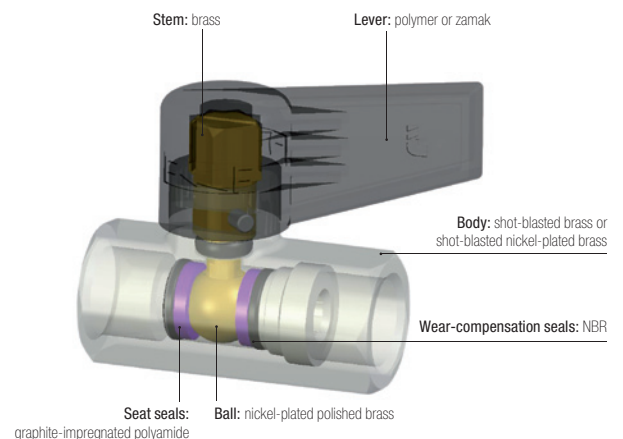
## Technical Characteristics

<b>Compatible Fluids</b>	Compressed air Other fluids: see compatibility chart at the end of this chapter
<b>Working Pressure</b>	Vacuum to 12 bar
<b>Working Temperature</b>	-20°C to +80°C

<b>Tightening Torques</b>	<b>Threads</b>	G1/8	G1/4	G3/8	G1/2	G3/4
	<b>daN.m</b>	0.10 to 0.20	0.10 to 0.20	0.15 to 0.25	0.20 to 0.35	0.50 to 0.70

Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used.  
Guaranteed for use with a vacuum of 755 mm Hg (99% vacuum).

### Component Materials



### Silicone-free

### Regulations

- DI: 97/23/EC (module PED A - diameters greater than 25 mm)
- DI: 2006/42/EC (Machinery Directive)
- DI: 2002/95/EC (RoHS)
- RG: 1907/2006 (REACH)

# Universal Light Series

## 0492 2/2 In-Line Ball Valve, Female BSPP Thread



	Nickel-plated brass, NBR 	<b>C</b>	<b>E</b>	<b>F</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/4 4 <a href="#">0492 04 13</a>	9	17	34	39.5	17	35	0.073
		G3/8 7 <a href="#">0492 07 17</a>	11	22	38	45	20	43	0.128
		G1/2 10 <a href="#">0492 10 21</a>	12	24	44	54	25	50	0.162
		G3/4 13 <a href="#">0492 13 27</a>	14	30	46	62	28	50	0.240
Technical polymer handle									

## 0492..64 2/2 In-Line Ball Valve, Short Handle, Female BSPP Thread



	Nickel-plated brass, NBR 	<b>C</b>	<b>E</b>	<b>F</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>		
		G1/4 4 <a href="#">0492 04 13 64</a>	9	17	36	39.5	17	25	0.090		
		Short handle in zamak									

## 0491 2/2 In-Line Ball Valve, Male/Female BSPP Thread



	Nickel-plated brass, NBR 	<b>C</b>	<b>E</b>	<b>E1</b>	<b>F</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/4 4 <a href="#">0491 04 13</a>	9	7	17	34	39.5	17	35	0.070
		G3/8 7 <a href="#">0491 07 17</a>	11	8	22	38	45	20	43	0.124
		G1/2 10 <a href="#">0491 10 21</a>	12	10	24	44	53	24	50	0.160
		G3/4 13 <a href="#">0491 13 27</a>	14	12	30	46	59	25	50	0.238
Technical polymer handle										

## 0491..64 2/2 In-Line Ball Valve, Short Handle, Male/Female BSPP Thread



	Nickel-plated brass, NBR 	<b>C</b>	<b>E</b>	<b>E1</b>	<b>F</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>		
		G1/4 4 <a href="#">0491 04 13 64</a>	9	7	17	36	39.5	17	25	0.092		
		Short handle in zamak										

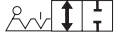
## 0490 2/2 In-Line Ball Valve, Male BSPP Thread


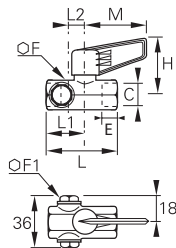




	Nickel-plated brass, NBR 	<b>C</b>	<b>E</b>	<b>F</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>M</b>	<b>kg</b>
		G1/4 4 <a href="#">0490 04 13</a>	7	17	34	39	17	35	0.070
		G3/8 7 <a href="#">0490 07 17</a>	8	22	38	44	20	43	0.109
		G1/2 10 <a href="#">0490 10 21</a>	10	24	44	53	24	50	0.160
		G3/4 13 <a href="#">0490 13 27</a>	12	30	46	59	25	50	0.233
Technical polymer handle									

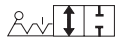
# Universal Light Series


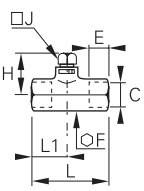


## 0494 2/2 In-Line Ball Valve, 2 Vent Plugs, Female BSPP Thread



	<p>Nickel-plated brass, NBR</p> 	<p><b>C</b>  </p>	<b>E</b>	<b>F</b>	<b>F1</b>	<b>H</b>	<b>L</b>	<b>L1</b>	<b>L2</b>	<b>M</b>	<b>kg</b>
		<p>G3/8 7 <a href="#">0494 07 17</a></p> <p>Technical polymer handle</p>	11	22	16	38	60	20	15	43	0.178


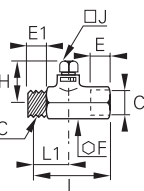


## 0497 2/2 Ball Valve, Square Stem, Female BSPP Thread



	<p>Brass, NBR</p> 	<p><b>C</b>  </p>	<b>E</b>	<b>F</b>	<b>H</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>kg</b>
		<p>G1/4 4 <a href="#">0497 04 13</a></p> <p>G3/8 7 <a href="#">0497 07 17</a></p> <p>G1/2 10 <a href="#">0497 10 21</a></p> <p>G3/4 13 <a href="#">0497 13 27</a></p>	9	17	25	7	39	17	0.066
			11	22	26	7	45	20	0.122
			12	24	29	10	54	25	0.148
			14	30	30	10	62	28	0.230

## 0496 2/2 Ball Valve, Square Stem, Male/Female BSPP Thread



	<p>Brass, NBR</p> 	<p><b>C</b>  </p>	<b>E</b>	<b>E1</b>	<b>F</b>	<b>H</b>	<b>J</b>	<b>L</b>	<b>L1</b>	<b>kg</b>
		<p>G1/4 4 <a href="#">0496 04 13</a></p> <p>G3/8 7 <a href="#">0496 07 17</a></p> <p>G1/2 10 <a href="#">0496 10 21</a></p> <p>G3/4 13 <a href="#">0496 13 27</a></p>	7	9	17	25	7	39	17	0.065
			8	11	22	26	7	45	20	0.118
			10	12	24	29	10	53	24	0.150
			12	14	30	30	10	59	28	0.222





# Ball Valves, DVGW Series

The combination of long threads, a reinforced sealing system and **DVGW** certification makes this valve perfect for the **transmission of gas and water**.

## Product Advantages

### Reliability & Sealing

Stem prevented from being ejected in the event of overpressure  
Two stem seals to prevent leakage  
Date coding to guarantee quality and traceability

### Optimum Performance

Full flow minimises pressure drop  
Nickel-plated brass provides improved corrosion resistance and increased chemical compatibility  
Can be operated at very low temperatures

### Long Threads

Excellent fitting compatibility:

- dimensions compliant with DIN 3357
- BSP threads compliant with DIN 2999/ISO 228



Robotics  
Pneumatics  
Water & Gas Handling  
Machine Tools  
Textile  
Wood Industry

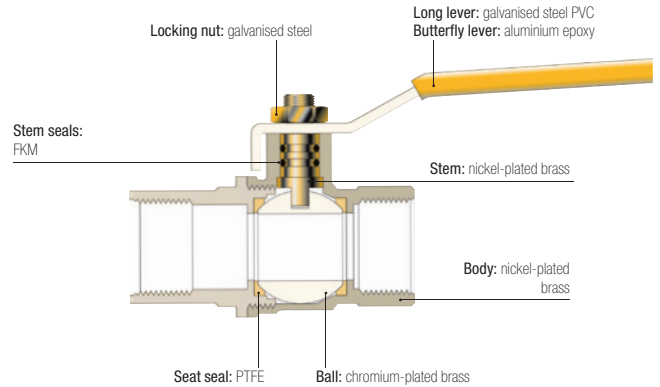
Applications

## Technical Characteristics

<b>Compatible Fluids</b>	Compressed air, water, gas
<b>Working Pressure</b>	1/4" to 2": 0 to 40 bar
<b>Working Temperature</b>	-40°C to +170°C

Reliable performance is dependent upon the type of fluid conveyed.

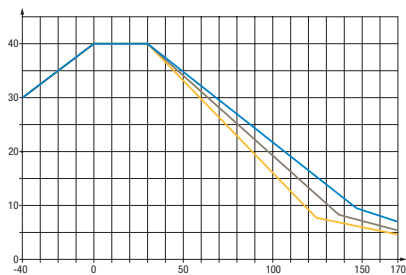
### Component Materials



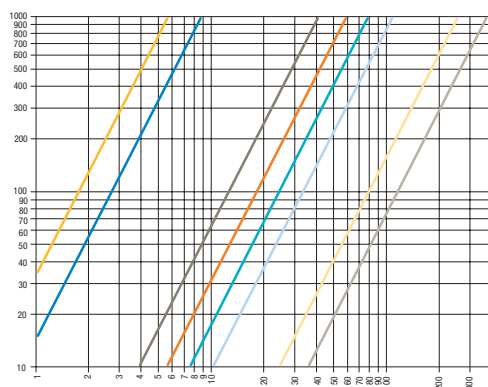
Silicone-free

### Working Pressure and Temperature

#### Pressure - Temperature



#### Pressure Drop



### Regulations

**Industrial**  
DI: 97/23/EC  
(PED B+D module EC 1115)

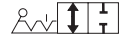
**Water**  
DVGW: W 570-1  
DIN EN 13228  
BGA KTW  
DVGW: W270

**Gas**  
DIN EN 33

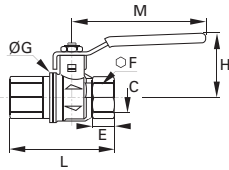


# DVGW Series

## BVG4-L 2/2 In-Line Ball Valve, Female BSPP Thread

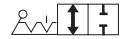


Nickel-plated brass, PTFE

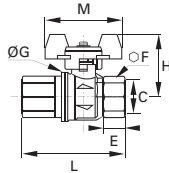


C	DN		E	F	ØG	H	L	M	kg
G1/4	8	<a href="#">BVG4-1/4L</a>	12	20	25	38	50	82	0.150
G3/8	10	<a href="#">BVG4-3/8L</a>	12	20	25	38	60	82	0.150
G1/2	15	<a href="#">BVG4-1/2L</a>	15.5	25	32.5	43	75	100	0.255
G3/4	20	<a href="#">BVG4-3/4L</a>	17	32	39	50	80	120	0.390
G1	25	<a href="#">BVG4-1L</a>	21	41	47.5	54	90	120	0.590
G1¼	32	<a href="#">BVG4-1,1/4L</a>	23	50	59	73	110	158	0.980
G1½	40	<a href="#">BVG4-1,1/2/4L</a>	23	55	71.5	79	120	158	1.205
G2	50	<a href="#">BVG4-2L</a>	26.5	70	86	86	140	158	1.960

## BVGT4-L 2/2 In-Line Ball Valve, Female BSPP Thread



Nickel-plated brass, PTFE



C	DN		E	F	ØG	H	L	M	kg
G1/4	8	<a href="#">BVGT4-1/4L</a>	12	20	25	39	50	50	0.150
G3/8	10	<a href="#">BVGT4-3/8L</a>	12	20	25	39	60	50	0.150
G1/2	15	<a href="#">BVGT4-1/2L</a>	15.5	25	32.5	43	75	50	0.230
G3/4	20	<a href="#">BVGT4-3/4L</a>	17	32	39	47	80	60	0.350
G1	25	<a href="#">BVGT4-1L</a>	21	41	47.5	51	90	60	0.550

Compact lever

# Ball Valves, Standard Series

This range of valves with **fluoropolymer seals**, available in compact, standard and lockable series, covers many **industrial applications** for which the fluids conveyed and working temperatures require this seal material.

## Product Advantages

**Optimised Installation**

- Full fluid flow
- Long or butterfly lever
- Corrosion resistance
- A lockable version for operational safety
- Good value/performance ratio

**Wide Compatibility**

- Numerous compatible fluids
- Can be used for low and medium pressure applications
- Surface treatment for corrosion protection



Machine Tool  
Agricultural Machinery  
Textile  
Pneumatics  
Plumbing  
Air Conditioning  
Heating

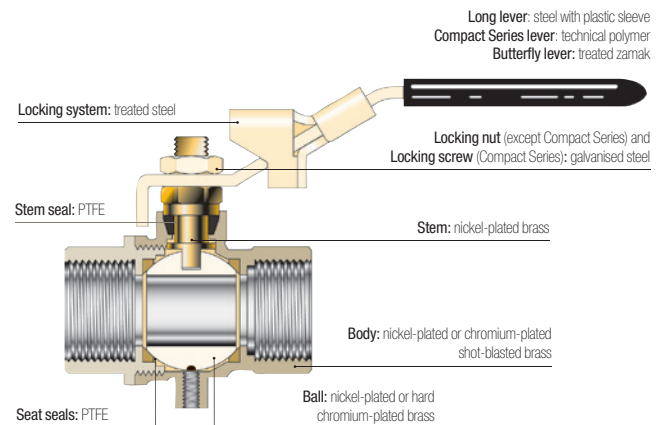
Applications

## Technical Characteristics

Model	Standard and Lockable Series	Compact Series
Compatible Fluids	Compressed air, gas, water, water vapour, oil and all fluids compatible with the component materials	
Working Pressure	0 to 30 bar	0 to 35 bar
Working Temperature	-20°C to +130°C	-10°C to +90°C

Reliable performance is dependent upon the type of fluid conveyed.

### Component Materials



### Silicone-free

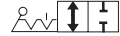
### Regulations

**Industrial**  
**DI:** 97/23/EC (module PED A - EC diameters greater than 25 mm)  
**DI:** Machinery Directive 2006/42/EC  
**DI:** 2002/95/EC (RoHS)  
**RG:** 1907/2006 (REACH)  
**DI:** 89/392/EC

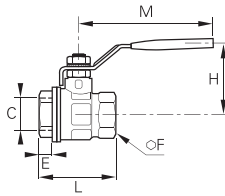
# Standard Series

## 4902

### 2/2 Standard In-Line Ball Valve, Female BSPP Thread



Nickel-plated brass, PTFE

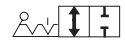


C	DN		PN	E	F	H	L	M	kg
G1/4	10	<a href="#">4902 10 13</a>	30	11	20	43	51.5	98	0.154
G3/8	10	<a href="#">4902 10 17</a>	30	11.4	20	43	51.5	98	0.138
G1/2	15	<a href="#">4902 15 21</a>	30	13.5	25	47	55	98	0.202
G3/4	20	<a href="#">4902 20 27</a>	30	12.5	31	58	57.5	122	0.322
G1	25	<a href="#">4902 25 34</a>	30	15	38	60	69.5	122	0.468
G1¼	32	<a href="#">4902 32 42*</a>	25	17	48	77	81.5	153	0.794
G1½	40	<a href="#">4902 40 49*</a>	25	18	54	83	95	153	1.082
G2	50	<a href="#">4902 50 48*</a>	25	22	66	95	113	162	1.787
G2½	65	<a href="#">4902 65 47*</a>	30	22	85	132	136	255	4.500
G3	80	<a href="#">4902 80 46*</a>	30	25	99	140	157	255	5.840
G4	100	<a href="#">4902 01 45*</a>	30	29	125	154	191	255	9.040

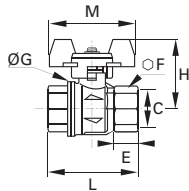
\*Models with CE marking  
Model from 2½": double stem seal in FPM  
Working temperature: -40°C to +170°C

## BVGT4-C

### 2/2 Standard In-Line Ball Valve, Female BSPP Thread



Sand-blasted nickel-plated brass, PTFE



C	DN		E	F	G	H	L	M	kg
G1/4	8	<a href="#">BVGT4-1/4C</a>	9	20	25	40	39	50	0.130
G3/8	10	<a href="#">BVGT4-3/8C</a>	9	20	25	40	39	50	0.120
G1/2	15	<a href="#">BVGT4-1/2C</a>	11	25	32.5	44	50	50	0.180
G3/4	20	<a href="#">BVGT4-3/4C</a>	12	31	39	49	54	50	0.265
G1	25	<a href="#">BVGT4-1C</a>	14	38	47.5	53	67	50	0.390

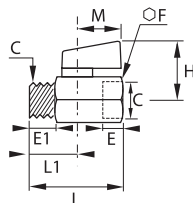
Compact lever

## 4991

### 2/2 Standard Compact In-Line Ball Valve, Male/Female BSPP Thread



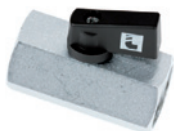
Chromium-plated brass, PTFE



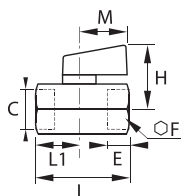
C	DN		E	E1	F	H	L	L1	M	kg
G1/8	6	<a href="#">4991 00 10</a>	10	10	21	30	41.5	10	24	0.091
G1/4	8	<a href="#">4991 00 13</a>	11	11	21	30	41.5	11	24	0.087
G3/8	8	<a href="#">4991 00 17</a>	11	11	21	30	41.5	10.5	24	0.087
G1/2	10	<a href="#">4991 00 21</a>	13	13	25	32	49	12.5	24	0.134

## 4992

### 2/2 Standard Compact In-Line Ball Valve, Female BSPP Thread



Chromium-plated brass, PTFE

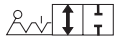


C	DN		E	F	H	L	L1	M	kg
G1/8	6	<a href="#">4992 00 10</a>	10	21	30	41.5	10	24	0.110
G1/4	8	<a href="#">4992 00 13</a>	11	21	30	41.5	11	24	0.106
G3/8	8	<a href="#">4992 00 17</a>	11	21	30	41.5	10.5	24	0.094
G1/2	10	<a href="#">4992 00 21</a>	13	25	32	49	12.5	24	0.142

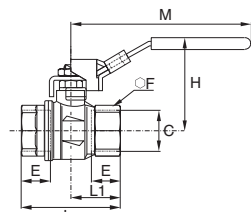
# Standard Series

## BVG4-LOCK

2/2 In-Line Lockable Ball Valve, Female BSPP Thread



Sand-blasted nickel-plated brass,  
PTFE



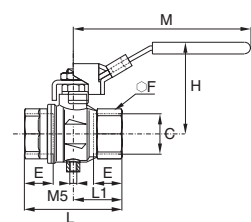
C	DN		E	F	H	L	L1	M	kg
G1/4	8	<b>BVG4-1/4LOCK</b>	12	20	47.5	45	22.5	96	0.154
G3/8	10	<b>BVG4-3/8LOCK</b>	12	20	47.5	45	22.5	96	0.171
G1/2	15	<b>BVG4-1/2LOCK</b>	15.5	25	52	59	29.5	96	0.238
G3/4	20	<b>BVG4-3/4LOCK</b>	17	31	59.5	64	32	117	0.370
G1	25	<b>BVG4-1LOCK</b>	21	40	63.5	81	40.5	117	0.580

## BVG4P-LOCK

2/2 In-Line Lockable Vented Ball Valve, Female BSPP Thread



Sand-blasted nickel-plated brass,  
PTFE



C	DN		E	F	H	L	L1	M	kg
G1/4	8	<b>BVG4P-1/4LOCK</b>	12	20	47.5	45	22.5	96	0.155
G3/8	10	<b>BVG4P-3/8LOCK</b>	12	20	47.5	45	22.5	96	0.172
G1/2	15	<b>BVG4P-1/2LOCK</b>	15.5	25	52	59	29.5	96	0.239
G3/4	20	<b>BVG4P-3/4LOCK</b>	17	31	59.5	64	32	117	0.371
G1	25	<b>BVG4P-1LOCK</b>	21	40	63.5	81	40.5	117	0.581

# Ball Valves: Usage Chart

The chart below shows the compatibility between valves and fluids along with their pressure and temperature characteristics.

Certain models have a maximum working pressure which differs from that given in this table. In this case, the pressure is shown in the heading for the model number in question.

N.B.: Above 32 mm or 1¼" diameters, divide the maximum pressure by 2.

If the fluid you are using is not shown in this chart, please contact us.

Chemical Description	Maximum Pressure (bar)	Temperature °C		Universal and Light Series	Standard Series	DVGW series	Customised Series							
		Min.	Max.				20	22	26	27	30	32		
"Aromatic" hydrocarbons	20	-20	+60					●						
Acetone and other ketones	20	-20	+60											●
Acetophenone	20	-20	+60											●
Acetylene - Acetone	20	-20	+60											●
Acetylene (gas)	20	-20	+60	●	●	●								
Alcohol (100%)	20	-20	Boiling											●
Aluminium (liquid suspension, thick)	40	-20	+90	●	●	●								
Amyl alcohol	20	-20	Boiling											●
Animal fats, greases	20	+5	+200		●	●			●					
Antifreeze or glycol (diluted)	40	-20	+40	●	●	●								
Argon (gas) Ar	20	-20	+60	●	●	●								
Barium - Hydroxide	20	-20	+40											●
Benzaldehyde	20	-20	+60											●
Benzene	20	-20	+60					●						
Benzyl alcohol	20	-20	Boiling					●						
Borax (pastes or solutions)	20	-20	+60											●
Brake fluids (automobile)	20	-20	+90											●
Bromochlorotrifluorethane	20	-20	+60		●	●			●					
Butadiene (hydrocarbon)	20	-20	+60									●		
Butane	20	-20	+60	●	●	●								
Butanol	20	-20	Boiling					●						
Butyl alcohol	20	-20	Boiling					●						
Butylene (hydrocarbon)	20	-20	+60					●						
Carbon dioxide gas CO <sub>2</sub>	40	-20	+60	●	●									
Castor oil	40	-20	+90	●	●									
Compressed air	20	-25	+180					●						
Creosotes	20	-20	+60									●		
Cresols	20	-20	+60									●		
Crude oil	20	-20	+40					●						
Cutting oil	40	-20	+90	●	●									
Decalin (hydrocarbon, solvent)	20	-20	+60									●		
Detergents (solutions)	20	-20	+100											●
Diacetone alcohol	20	-20	Boiling											●
Diesel oils	40	-20	+90	●	●									
Di-Esters	20	-20	+90					●						
Di-Isobutylene	20	-20	+60									●		
Di-Pentane	20	-20	+60					●						

The above recommendations are given in good faith. However, since each application is different, it is advisable to undertake tests in actual working conditions.

# Ball Valves: Usage Chart

Chemical Description	Max. Pressure (bar)	Temperature °C		Universal and Light Series	Standard Series	DVGW Series	Customised Series						
		Min.	Max.				20	22	26	27	30	32	
Di-Pentene (solvents, varnish)	20	-20	+60					●					
Di-Phenyl-Oxide (thin detergents)	20	-20	+60								●		
Distilled water	40		+90	●	●	●							
Edible fats	20	+5	+200		●					●			
Edible oils	20	+5	+200		●					●			
Erytrene (see Butadiene)	20	-20	+60								●		
Ethane (gas) CH <sub>2</sub> CH <sub>3</sub>	20	-20	+60	●	●								
Ethane (hydrocarbon gas)	20	-20	+60								●		
Ethyl alcohol	20	-20	+60										●
Ethylene glycol (antifreeze) - see Glycols	20	-20	+120										●
Fatty alcohols	20	-20	Boiling					●					
Fuel oils	40	-20	+40	●	●	●							
Fuels-Diesels	40	-20	+40	●	●								
Gaseous oxygen (ambient air)	20	-20	+40										●
Glycerine	20	-20	+40	●	●								
Glycol (for antifreeze, lubricants)	40	-20	+40	●	●								
Graphite in suspension in water, oils and greases	40	-20	+90	●	●								
Greases (from petroleum)	40	-20	+90	●	●								
Helium (gas)	20	-20	+60										●
Heptanal	20	-20	+50	●	●								
Hexane (solvent)	20	-20	+60										●
Hydraulic oils (petroleum-based)	40	-20	+90	●	●								
Hydrogen (gas)	20	-20	+60										●
Inks	20	-20	+60									●	
Insecticides	20	0	+40	●	●	●							
Iso-Butane (aliphatic hydrocarbon)	20	-20	+60									●	
Iso-Octane	20	-20	+60									●	
Isopropyl alcohol	20	-20	Boiling										●
Krypton (gas) Kr	20	-20	+60	●	●	●							
Light water	40		+80	●	●	●							
Lighting gas	20	-20	+40			●							
Methane (gas) CH <sub>4</sub>	20	-20	+60	●	●	●							
Methanol	20	-20	Boiling										●
Methyl alcohol	20	-20	Boiling										●
Methylated spirit	40	-20	+40	●	●	●							
Mineral oils	40	-20	+90	●	●								
Natural gas	20	-20	+40			●							
Natural waxes (vegetable, beeswax, carnauba, Chinese, lignite)	40	-20	+90									●	
Neatsfoot oil	40	-20	+90	●	●	●							
Neon (Gas) Ne	20	-20	+60	●	●	●							
Nitrogen (gas) N <sup>2</sup>	40	-20	+90	●	●	●							
Oil (petroleum-based) and water emulsions	40	-20	+90	●	●	●							

The above recommendations are given in good faith. However, since each application is different, it is advisable to undertake tests in actual working conditions.





# Ball Valves, Stainless Steel Series

**Stainless steel** series ball valves can withstand **corrosive fluids** and **environments**.

With full flow, high pressure and temperature capabilities, these valves are suitable for many applications.

## Product Advantages

**Reliability** | Full flow  
Excellent chemical compatibility  
High resistance to pressure/temperature  
Light series version: 100% leak-tested in production, date coding to guarantee quality and traceability

**Versatility** | Three in-line versions:  

- One-piece: cannot be disassembled
- 3-piece: easily disassembled for maintenance and cleaning
- Light Series: for maximum compactness

 Fixing plate: 4812 and 4832  

- Through-bulkhead fitting
- Pneumatic or electronic actuation (ISO 5211 standard)



**Applications**

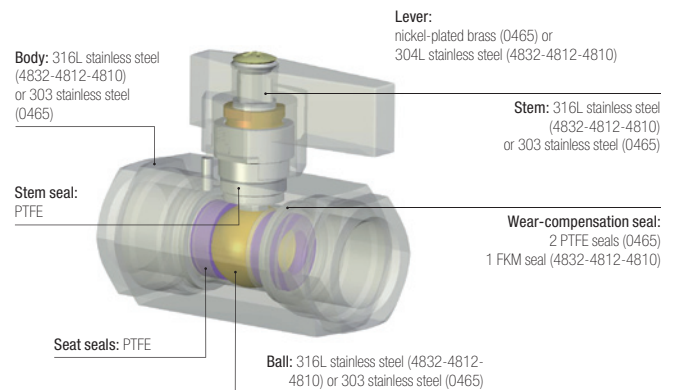
Food Process  
Aviation  
Chemical  
Semi-Conductors  
Medical  
Petrochemical  
Laboratories  
Pharmaceutical

## Technical Characteristics

Compatible Fluids	Type 4810, 4812 and 4832	Type 0465
	All fluids	All fluids
Working Pressure	0 to 65 bar	Vacuum to 20 bar
Working Temperature	-20°C to +150°C	-20°C to +120°C

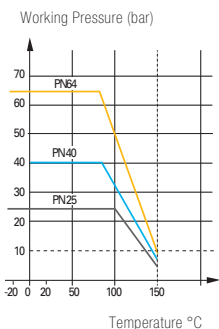
Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used.  
Guaranteed for use with a vacuum of 755 mm Hg (99% vacuum).

### Component Materials



### Pressure and Temperature Resistance

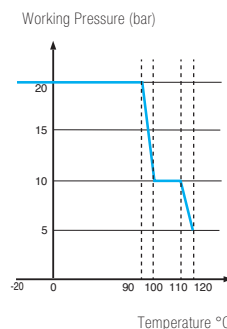
#### Version 4810, 4812 and 4832



Examples at +100°C:  
PN 64: 48 bar  
PN 40: 30 bar  
PN 42: 17 bar

For temperatures between +150°C and +200°C, please contact us.

#### Version 0465



### Regulations

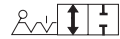
#### Industrial

**DI:** 97/23/EC (module PED A - EC diameters greater than 25 mm)  
**DI:** Machinery Directive 2006/42/EC  
**DI:** 2002/95/EC (RoHS)  
**RG:** 1907/2006 (REACH)  
**DI:** 89/392/EC

# Stainless Steel Series

**4832**

2/2 In-Line 3-Piece Ball Valve with Fixing Plate, Female BSPP Thread



Stainless steel 316L, PTFE		C	DN		E	F	G	H	K	L	M	ØT	kg
		G1/4	10	<a href="#">4832 10 13</a>	18	22	36	50	36	57	110.5	5.5	0.272
		G3/8	10	<a href="#">4832 10 17</a>	18	22	36	50	36	57	110.5	5.5	0.400
		G1/2	15	<a href="#">4832 15 21</a>	20.5	27	36	64	36	65	131.5	6	0.442
		G3/4	20	<a href="#">4832 20 27</a>	22.5	32	42	68	42	76	131.5	5.5	0.568
		G1	25	<a href="#">4832 25 34</a>	27	41	42	78.5	42	92	174.5	6	1.035
		G1¼	32	<a href="#">4832 32 42*</a>	30	50	42	83.5	42	106.5	174.5	5.5	1.530
		G1½	40	<a href="#">4832 40 49*</a>	31	55	50	100	50	116	250.5	6.5	2.146
		G2	50	<a href="#">4832 50 48*</a>	36	70	50	107	50	136	250.5	6.5	3.140

\*Models with CE marking

**4812**

2/2 In-Line Ball Valve with Fixing Plate, Female BSPP Thread



Stainless steel 316L, PTFE		C	DN		E	G	H	L	M	ØT	kg
		G1/4	10	<a href="#">4812 10 13</a>	10	36	50	55	110	5.5	0.263
		G3/8	10	<a href="#">4812 10 17</a>	11	36	50	55	110	5.5	0.254
		G1/2	15	<a href="#">4812 15 21</a>	15	36	53	66	110	5.5	0.336
		G3/4	20	<a href="#">4812 20 27</a>	16	42	67	79	130	5.5	0.574
		G1	25	<a href="#">4812 25 34</a>	19	42	79	93	175	5.5	1.000
		G1¼	32	<a href="#">4812 32 42*</a>	21	42	83	100	175	5.5	1.337
		G1½	40	<a href="#">4812 40 49*</a>	21	50	100	110	250	5.5	2.214
		G2	50	<a href="#">4812 50 48*</a>	26	70	107	131	250	8.5	3.262

\*Models with CE marking

**4810**

2/2 In-Line Ball Valve, Female BSPP Thread



Stainless steel 316L, PTFE		C	DN		E	G	H	L	M	kg
		G1/4	8	<a href="#">4810 08 13</a>	10	30	44.5	53.5	110.5	0.205
		G3/8	10	<a href="#">4810 10 17</a>	10	30	44.5	53.5	110.5	0.194
		G1/2	15	<a href="#">4810 15 21</a>	13	32.5	47	60	110.5	0.245
		G3/4	20	<a href="#">4810 20 27</a>	14	40	54.5	70	131.5	0.420
		G1	25	<a href="#">4810 25 34</a>	17	49	58.5	79	131.5	0.648

Threads conform to ISO 228-1

**0465**

2/2 In-Line Light Series Ball Valve, Female BSPP Thread



Stainless steel 303, PTFE		C	DN		E	F	F1	H	L	kg
		G1/4	4	<a href="#">0465 04 13</a>	13	19	24	36	50	0.226
		G3/8	7	<a href="#">0465 07 17</a>	13	24	27	39	55	0.278
		G1/2	10	<a href="#">0465 10 21</a>	16	27	30	40	62	0.322

Silicone-free

# Ball Valves, High Pressure Series

These valves are suitable for **applications** with pressures **up to 300 bar**. High performance materials and quality manufacturing allow for a wide range of operating pressures and temperatures.

## Product Advantages

### High Pressure & Safety

Good sealing at low and high pressure  
Robust design with secure, non-removable inlet and outlet ports  
Forged brass providing excellent long-term strength under severe conditions of use  
100% leak-tested in production  
Date coding to guarantee quality and traceability

### Easy-to-Use

Fixing screws for through-bulkhead mounting  
The lever may be repositioned or replaced with a handwheel  
Low operating torque



Automotive Process  
Foundry  
Forming  
Machine Tools  
Textile  
Spectacle-Making Industry  
Turbines  
Deep-Sea Diving

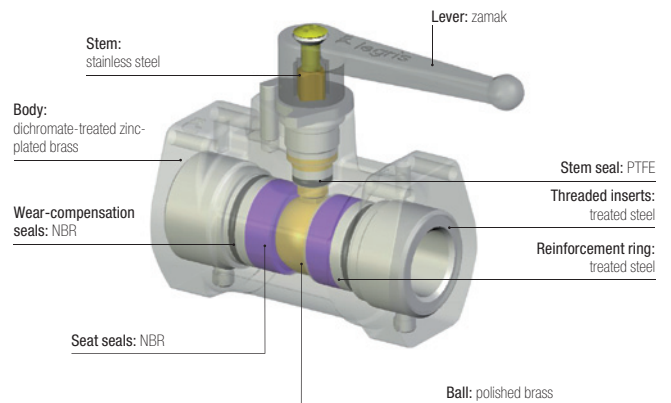
Applications

## Technical Characteristics

<b>Compatible Fluids</b>	Compressed air
<b>Working Pressure</b>	Vacuum to 300 bar
<b>Working Temperature</b>	-15°C to +80°C

Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used.  
Guaranteed for use with a vacuum of 755 mm Hg (99% vacuum).

### Component Materials



### Silicone-free

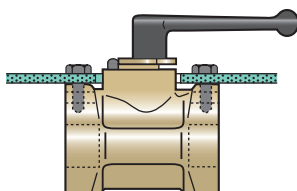
### Regulations

DI: 97/23/EC (module PED A - diameters greater than 25 mm)  
DI: 2006/42/EC (Machinery Directive)  
DI: 2002/95/EC (RoHS)  
RG: 1907/2006 (REACH)

## Installation Options

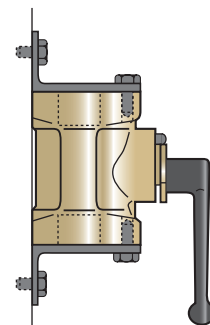
### Bulkhead Mounting

Through bulkhead with screws



### Surface Mounting

With brackets and screws



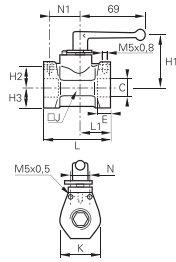
# High Pressure Series

**4402**

2/2 In-Line High Pressure Ball Valve, Female BSPP Thread



Treated brass, NBR



C	DN		E	H1	H2	H3	J	K	L	L1	N	N1	kg
G1/4	7	<a href="#">4402 07 13</a>	12	50	13	15	30	30	58	25	15	20	0.402
G3/8	10	<a href="#">4402 10 17</a>	12	54	23	19	36	39	72	36	20	30	0.722
G1/2	13	<a href="#">4402 13 21</a>	15	56	23	21	40	42	79	36	20	30	0.870

# Ball Valves, Mini Series

With their **push-in connections**, these polymer lightweight ball valves allow for a significant reduction in installation time while offering **full flow capability** and **compact dimensions**.

## Product Advantages

### Optimum Solution

- Full flow
- Marked with the pneumatic symbol for identification of its function
- Lightweight and compact
- Extremely compact, easy-to-operate lever
- Lever with screwdriver slot to facilitate operation
- Designed for polymer tubing with no tube preparation
- Can be mounted on a wall or adjacent using staples



### Proven Technology

- LF 3000® push-in connection, excellent static and dynamic sealing
- High-strength polyamide
- Excellent long-term performance
- Automatic seal wear compensation for long-term reliability
- 100% leak-tested in production
- Date coding to guarantee quality and traceability

- Applications**
- Robotics
  - Vacuum
  - Semi-Conductors
  - Packaging
  - Textile
  - Pneumatics

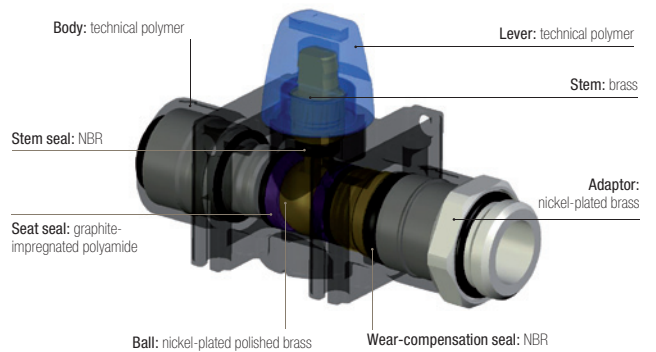
## Technical Characteristics

<b>Compatible Fluids</b>	Compressed air			
<b>Working Pressure</b>	Vacuum to 10 bar			
<b>Working Temperature</b>	-20°C to +80°C			

<b>Tightening Torques</b>	Threads	G1/8	G1/4	G3/8	G1/2
	daN.m	0.8	1.2	3	3.5

Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used.  
Guaranteed for use with a vacuum of 755 mm Hg (99 % vacuum).

### Component Materials

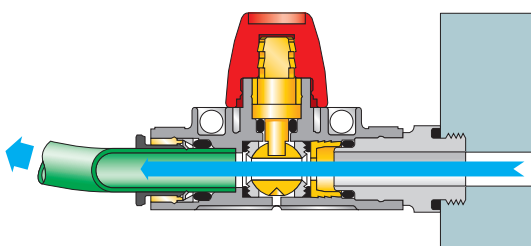


### Silicone-free

## Operation

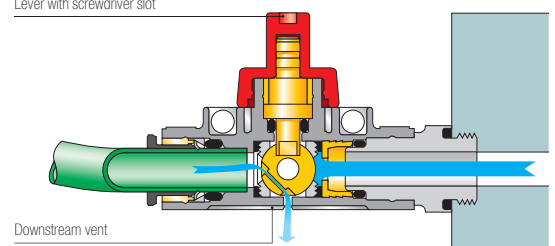
### Vented Valve, Open Position

3/2 model with vent



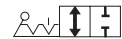
### Vented Valve, Closed Position

Lever with screwdriver slot

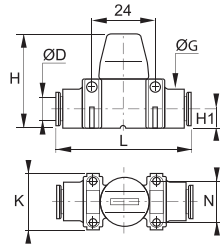


# Mini Series

## 7910 2/2 In-Line Mini-Ball Valve

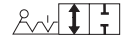


Technical polymer, NBR

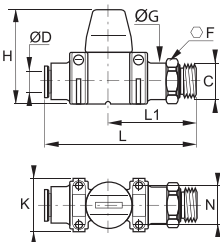


ØD		G	H	H1	K	L	N	kg
4	<a href="#">7910 04 00</a>	15	37	7.5	22	51	16	0.039
6	<a href="#">7910 06 00</a>	15	37	7.5	22	52	16	0.034
8	<a href="#">7910 08 00</a>	15	37	7.5	22	52	16	0.025
10	<a href="#">7910 10 00</a>	20	43	11	30	66	22	0.060
12	<a href="#">7910 12 00</a>	20	43	11	30	66	22	0.040

## 7911 2/2 In-Line Mini-Ball Valve, Male BSPP Thread



Technical polymer, nickel-plated brass, NBR

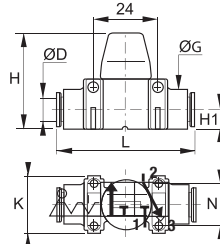


ØD	C		F	G	H	K	L	L1	N	kg
6	G1/8	<a href="#">7911 06 10</a>	13	14	37	22	62	37	16	0.045
8	G1/4	<a href="#">7911 08 13</a>	16	17.5	37	22	61	35	16	0.040
10	G3/8	<a href="#">7911 10 17</a>	20	22	43	30	74	41	22	0.075
12	G1/2	<a href="#">7911 12 21</a>	24	26	43	30	75	42	22	0.075

## 7913 3/2 In-Line Mini-Ball Valve with Vent

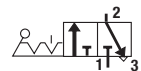


Technical polymer, NBR

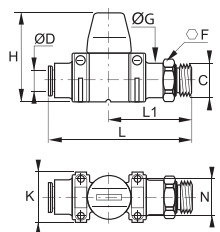


ØD		G	H	H1	K	L	N	kg
4	<a href="#">7913 04 00</a>	15	37	7.5	22	51	16	0.040
6	<a href="#">7913 06 00</a>	15	37	7.5	22	52	16	0.035
8	<a href="#">7913 08 00</a>	15	37	7.5	22	52	16	0.025
10	<a href="#">7913 10 00</a>	20	43	11	30	66	22	0.060
12	<a href="#">7913 12 00</a>	20	43	11	30	66	22	0.045

## 7914 3/2 In-Line Mini-Ball Valve with Vent, Male BSPP Thread



Technical polymer, nickel-plated brass, NBR



ØD	C		F	G	H	K	L	L1	N	kg
6	G1/8	<a href="#">7914 06 10</a>	13	14	37	22	62	37	16	0.045
8	G1/4	<a href="#">7914 08 13</a>	16	17.5	37	22	61	35	16	0.040
10	G3/8	<a href="#">7914 10 17</a>	20	22	43	30	74	41	22	0.058
12	G1/2	<a href="#">7914 12 21</a>	24	26	43	30	75	42	22	0.075

## 7000 Joining Clips

Technical polymer



ØD		kg
4	<a href="#">7000 00 05</a>	0.004
6	<a href="#">7000 00 05</a>	0.004
8	<a href="#">7000 00 05</a>	0.004
10	<a href="#">7000 00 06</a>	0.009
12	<a href="#">7000 00 06</a>	0.009